

# ABSTRACT OF THE DISCLOSURE

Road area blocks of monitoring camera video data are extracted by a road area block extractor, and motion vectors are calculated by a motion vector calculator. A motion  
5 vector direction detector detects the directions of the motion vectors. In a normal state, the mean value  $\Theta$  and the variance  $\sigma_e^2$  of the directions  $\theta$  of the motion vectors are calculated and accumulated in a statistics memory. In detection of road obstructions, the directions of the motion  
10 vectors detected by the motion vector direction detector are transmitted to an abnormal motion vector degree  $Q$  calculator. An abnormal motion vector degree  $Q$  is calculated on the basis of the statistics accumulated in the statistics accumulated in the statistics memory. A  
15 comparator compares the abnormal motion vector degree  $Q$  with a threshold. When the abnormal motion vector degree  $Q$  is equal to or larger than the threshold, road obstructions are decided. Therefore, according to the present invention, a detection apparatus for road obstructions which is not  
20 easily affected by changes in brightness and color in an image and which is not easily adversely affected by the color of a running vehicle is provided.